

Technical Committee 184: Industrial automation systems and integration Subcommittee 4: Industrial data

TC 184/SC4 N 950

1999-11-11

# ISO TC 184/SC4 FINAL PROPOSED DRAFT RESOLUTIONS FOR SC4 MEETING 1999-12-11 New Orleans, La.

Address reply to:

ISO TC 184/SC4 Secretariat National Institute of Standards and Technology Building 220, Room A127

Gaithersburg, MD 20899 USA

### Resolution "A"

### **SC4 Project Leadership and Editorship Approvals**

### from SC4 Secretariat ANSI/NIST/DISA

### **Introduction**:

ISO Directives require that project leaders be approved by SC4. There has been some turn over in leadership for several projects. Each project is also strongly encouraged to have an associated part editor. For those where the project leader or editor are not listed, these positions have already been approved.

### **Objective(s):**

- As prescribed by the Directives to approve those project leaders who have changed since the last SC4
  meeting
- To reinforce the important role of editors by recognizing those newly appointed since the last SC4 meeting
- To continue to reflect the current list of project leaders and editors in the project management database

### **Resolution:**

SC4 approves the following new project leaders or project editors for the associated SC4 projects:

ISO Project #Project LeadDocument Editor10303-11 Edition 2Don Sanderson10303-325Julian Fowler10303-AP221Andries van Renssen.

### SC4 Resolution "B"

### Retention of Dual Editions of ISO 10303-41, -42, -43, and -44

from PDES, Inc. A-Liaison

### **Introduction:**

ISO requires that when a new edition of a standard (or part of a standard) is published, the previous edition of the standard is withdrawn and no longer available for sale. SC4 adopted Resolution 380 (Beijing, China) agreeing that maintaining dual editions of a part when a new edition is published may be useful in managing the evolution of SC4 Standards, and that the decision to exercise this ability should be made on a part-by-part basis.

Because SC4 has supported upward compatibility in the ISO 10303 standards, the interoperability of implementations of APs should not be affected by the publication of new editions of ISO 10303 –41, 42, 43, and 44 as replacements. However, for those SC-4 Parts that are in development and that are based on the first edition, rework will be required to reflect the new edition. For more advanced parts, such as AP209 and Part 104, rework to incorporate the new editions is not justified and will result in additional delays.

### **Objective:**

• To maintain dual editions of ISO 10303 –41, -42, -43, and -44

### **Resolution:**

SC4 requests that the ISO Central Secretariat retain the 1994 editions of ISO10303 –41, -42, -43, and -44. SC4 directs the Project Teams of the respective parts to modify their documents to reflect this decision.

### **REVISED SC4 Resolution "C"**

# Standardization of EXPRESS Amendment as a Minor Technical Revision

from US

### **LAST DAY Resolution REVISION:**

Changes to Advanced EXPRESS Amendment Resolution

- 1 Change the request for FDIS ballot to a request for DIS ballot based on results of issues resolution workshop held this week.
- 2 Change the word "Revision" to the word "Amendment" in all cases. The plan is to go out for DIS as an Amendment, and then publish the final IS document as a "Revision" which will actually be EXPRESS Edition 2. (The current EXPRESS Edition 2 work will be balloted as EXPRESS Edition 3, I don't know if you need to include this or not).

### **Introduction:**

Based on requirements for minor extensions to the EXPRESS language developed in the WG10 STEP Modularization PWI, an amendment to EXPRESS was proposed to the EXPRESS Edition 2 NWI project in Lillhammer. The EXPRESS Edition 2 team agreed that the requirements were already satisfied by concepts that existed in working drafts of EXPRESS Edition 2. The EXPRESS Edition 2 team also agreed to support an amendment providing the two developments were closely coordinated. In order to coordinate these developments it was agreed that Phil Spiby would be the project leader and that David Price and John Valois would be the project co-editors and that the amendment would be developed within the EXPRESS Edition 2 team. A final consideration was that the amendment not invalidate any existing EXPRESS schemas (e.g. it must be 100 percent upward compatible).

The original plan was to standardize the amendment as a Technical Specification as it was simply taking some portions of EXPRESS Edition 2 and standardizing them earlier than the EXPRESS Edition 2 team had planned. Once approved, EXPRESS Edition 2 would then replace the amendment. Upon further investigation with the ISO Central Secretariat it was discovered that an International Standard cannot be amended by a Technical Specification. The EXPRESS Edition 2 and amendment teams considered several options available for ISO standardization and determined that an approach as follows would allow the same level of consensus to be built within SC4 and would provide EXPRESS users and implementors with a standard in the same timeframe had the original plan been possible:

- 1. produce the document amending EXPRESS as a Minor Technical Revision;
- circulate the Minor Technical Revision with the preliminary resolutions for the New Orleans SC4
  meeting stating that the project is requesting the document be reviewed as though it were out for a
  Draft Technical Specification ballot with a ballot issue resolution workshop to be held at the New
  Orleans ISO meeting in November;
- circulate a preliminary resolution for the New Orleans SC4 meeting stating that the project is requesting that the EXPRESS Minor Technical Revision be allowed to be submitted for Final Draft International Standard assuming a successful outcome of the issues resolution workshop during the main week.

### **Objective:**

The major objective of this resolution is to gain international consensus on the contents of the proposed Minor Technical Revision to EXPRESS in support of requirements from the STEP Modularization

projects. As ISO rules do not allow publication of this technical content as a Technical Specification, the resolution requests that SC4 members treat this preliminary resolution as notification that the document numbered SC4 Nxxx should be reviewed as though it were undergoing Draft Technical Specification ballot. A ballot issue resolution workshop will be held during the New Orleans ISO meeting main week. These are simple but powerful extensions to EXPRESS that make creating Application Modules ARMs and AIMs much simpler. These requirements have been known for some time and have been addressed in the EXPRESS committee. This revision is simply taking a small subset of the EXPRESS Edition 2 technical content and adding it to EXPRESS in an upward compatible fashion.

### **Resolution:**

SC4 resolves that the EXPRESS Edition 2 project shall be allowed to submit the EXPRESS Amendment supporting STEP modularization updated during the issue resolution workshop this week, as a Minor Technical Revision, to a Final Draft International Standard ballot pending the completion of the SC4 quality process for FDIS documents.

### **Attached documents:**

**WG11 N084** - pdf- the Amendment circulated with the resolution in September http://www.nist.gov/sc4/wg\_qc/wg11/n084/

**WG11 N085** -pdf- a slide presentation outlining the amendment <a href="http://www.nist.gov/sc4/wg\_qc/wg11/n085/">http://www.nist.gov/sc4/wg\_qc/wg11/n085/</a>

### SC4 Resolution "D"

### Recognition of Joint OMG/STEP Harmonization Activity

from
PDES, Inc. and ProSTEP
A-Liaisons

### **Introduction:**

Representatives from the OMG Manufacturing Domain Task Force and the STEP community are working together to investigate the complementary use of STEP and OMG standards. The initial focus is a comparison and harmonization of the standards in the Product Data Management area. The first deliverable of the activity is a White Paper entitled "STEP and OMG Product Data Management Specifications: A Guide for Decision Makers". The paper outlines scenarios and defines a high-level architectural approach for the use of the STEP PDM schema and OMG standards, and it provides decision criteria for the use of the standards to satisfy business requirements. The white paper has been submitted to OMG and is undergoing that approval process. Please send comments to David Price at dmprice@us.ibm.com by October 21, 1999 to be considered for the final draft planned for October 25, 1999 for review at the November OMG meeting. Official OMG approval is expected at the OMG meeting on November 19, 1999 with final publication shortly thereafter.

### **Objective:**

- Distribute "STEP and OMG Product Data Management Specifications: A Guide for Decision Makers" to SC-4 for review and comment
- Recognize and continue support for the harmonization activity

### **Resolution:**

SC4 recognizes and supports the continuation of the harmonization activity by the OMG Manufacturing Domain Task Force and members of the STEP community. SC4 requests that members disseminate information about this white paper and the OMG/STEP harmonization activity in general.

### **Attachments:**

STEP and OMG Product Data Management Specifications: A Guide for Decision Makers

### **SC4 Resolution "E"**

### **Minor Revision Process Update for SC4 Handbook**

# From Chair SC4

### **Introduction:**

The ISO CS has made SC4 aware of a publication process that is not documented in the ISO Directives, but is available to ISO committees. This process is called a Minor Revision to an International Standard. In cases where changes are needed to an international standard, but there are no fundamental changes, this process is allowed. As far as ISO is concerned, the committee should prepare a complete new text for the standard and send the document to ISO with a certification of the Secretary of the Committee that there are no fundamental changes and a request to publish the document as a minor revision. ISO will then carry out the equivalent of the two month FDIS ballot to confirm agreement of the ISO community. Upon a successful ballot, the document will be published as a new edition of the international standard, replacing the existing one.

The SEDS process in documents errors and ambiguities in our published standards and the only courses of action open have been to publish Technical Corrigenda, Amendments or new editions. These latter two approaches require the long NWI, CD, DIS process and the Technical Corrigenda process is intended by ISO to be used in cases where the use of the standard as published will lead to unsafe conditions. SC4 has used the Technical Corrigenda approach when meeting the criteria of unsafe conditions is debatable. Concern has been expressed by ISO CS that just correcting EXPRESS errors might not be acceptable. The Change Management Committee has discussed the use of Technical Corrigenda and expressed concern that when we abuse this publication method, the public might not be able to clearly recognize cases when use of the published standard could create an unsafe condition.

### **Objective:**

To document an SC4 process for authorizing the publication of a Minor Revision.

### **Resolution:**

SC4 requests the Secretary to make the following changes to Clause 3.1.3 Revision of the SC4 Handbook.

**1.** Replace Clause 3.1.3 with the following text:

A revision to an International Standard results in the publication of a new edition of the standard. Revisions may take one of two forms.

Revision Minor Revision

### 3.1.3.1 Revision

A revision is developed when the extent and scope of the changes being made make it impractical to publish the changes in the form of an amendment.

The procedure for authorizing, developing and approving a revision shall be as described in clauses 2.3 through 2.7 of this handbook.

### 3.1.3.2 Minor Revision

A minor revision is developed when there are no fundamental changes to the existing International Standard and when a)the use of a Technical Corrigenda is not justified as described in IDP1, 2.10.1 or b)the cost and time for a full revision as described in clause 3.1.3.1 of this handbook is not justified.

The procedure for authorizing, developing and approving a minor revision is not described in the ISO Directives. The ISO Technical Officer for SC4 describes the process as: a)Develop a completely new document, b)Forward the document to ISO with a certification by the SC4 Secretary that there are not fundamental changes and request publication as a minor revision, c)ISO will ballot as an FDIS and upon a successful ballot publish as a new edition of the International Standard.

Within SC4, the proposer shall seek the advice of the Change Management Advisory Committee. They will provide to the committee: a)An explanation of the need for the minor revision as documented in SEDS reports, b)an explanation of the expected changes to the standard and why the resulting documents will not make a fundamental change to the existing international standard and c)the schedule and resources for producing the required document.

Upon acceptance of the information provided, the Change Management Committee will advise the Secretary to draft a resolution for SC4 to authorize the commencement of work on the minor revision.

Approval by SC4 shall require the same level of approval as the current level of approval for an FDIS ballot.

When the document is completed, complying with SC4 procedures and check-off, the Secretary will forward the document to ISO CS for ballot circulation as a minor revision.

**2.** Replace the reference in clause 3.2 to the QC Change Management Committee and the reference in clause 3.1 to the Change Management Team of the Quality Committee in clause 3.1 with a reference to the Change Management Advisory Committee

### Revised SC4 Resolution "F"

### **Electronic Balloting**

From SC4 SEC

### Last day resolution:

### Electronic operations/electronic balloting

### Introduction

SC4 affirms its objective to move towards total electronic operations and directs the SC4 Secretariat to implement the elements necessary to achieve this objective, to include the establishment of an electronic balloting system as quickly as feasible.

### **Objectives:**

The objective of this resolution is to affirm SC4 intentions to support

### **RESOLUTION:**

SC4 instructs the Secretariat to identify actions necessary to migrate to a totally electronic operation of SC4 as feasible and to prepare any necessary proposals for approval at Melbourne.

### SC4 Resolution "G"

### **Balloting of Technical Specifications**

### ISO TC 184/SC4 Last Day Resolution From Policy and Planning Committee

#### Introduction

The ISO Directives do not include explicit guidance for the balloting and approval of Technical Specifications.

ISO has provided the following guidance:

For the TS, the principle is that the document is voted just like a CD, except that instead of approving the document for registration as a DIS, it is approved for publication as a TS.

There are 2 solutions in case the document is approved for publication as a TS with some comments:

- 1) If the comments are very important, the SC secretariat/chair should decide to ballot again the final text including the comments (just like a second CD).
- 2) If the comments are not so fundamental, they may be included the comments in the final text which shall be sent to ISO for publication. It is suggested in this case that the TC secretariat/chair prepare a kind of "voting report" giving explanations on how all the comments have been handled, to be distributed to SC4 members.

These guidelines should be included in the SC4 procedures, noting that the quality requirements for preparing a revised TS document are no different to those for preparing a CD for DIS or second CD ballot.

### **Objectives**

To introduce procedures for handling Technical Specifications into the Organisational Handbook.

### Resolution

SC4 approves the following amendments to the Organisation Handbook (changes in italics):

### Clause 2.1:

Amend the current text: 30 Committee Stage: Consensus is achieved on a Committee Draft (CD) or Technical Specification (TS);

Insert: Technical Specifications pass directly from the Committee Stage to the Publication Stage

### Clause 2.5:

Amend the current text:

The Committee Stage begins with the circulation for formal ballot of the paper CD *or TS* document by the SC4 Secretariat. The SC4 Secretariat shall not begin the Committee Stage until an electronic form is available for review by SC4. A four-month voting period, which may be extended to six months, is used for the first ballot.

After each ballot, the Project team and Editor prepare a revised document that resolves the ballot comments received. A technical and editorial review of the revised document is conducted within the Project. The SC4 Quality Manual provides procedures and guidelines for preparation of the document and for review of its content. The Project Leader and the Working Group Convener review and approve the document using the checklists provided by the Quality Committee before the next stage of balloting starts.

For a TS, the Chairman and Secretariat, in conjunction with the Project Leader, assess the nature of any comments and decide whether to either

- (a) submit the revised document to ISO for publication as a TS, and prepare a report for SC4 how all the comments have been addressed, or
- (b) resubmit the document for a further CD ballot.

Clauses 6.2.4, 7.6, 8.2: Add TS to CD in the list of documents.

SC4 further requests its secretariat to make the corresponding changes to the SC4 web pages.

### SC4 Resolution "H"

## ISO TC 184/SC4 Resolution Paper for SC4 Committee Meeting

### New Orleans, USA

### 1999-11-12

### Proposer:

ISO TC184/SC4 Quality Committee

### **Introduction:**

During the development of the SC4 Quality Manual (currently being balloted as an SC4 Standing Document – see SC4 N917 and QC N121) a number of omissions from the SC4 Handbook have been identified.

### **Objectives:**

This resolution proposes five changes to the text of the SC4 Handbook to cover the following:

- Extension of the procedure describing applicability of Standing Documents to include new Standing Documents as well as revisions to existing ones.
- Clarification of the approval process for changes to Standing Documents.
- Clarification of responsibility for project document control.
- Addition of references to the Quality Manual to describe the requirement on Projects to maintain Quality Records
- A formal assessment procedure for the work of Project Leaders

### **Resolution:**

SC4 resolves to accept the amendments to the SC4 Organization Handbook as defined in SC4 QC N123, with immediate effect.

### **Attached documents:**

• QC N123

### SC4 Resolution "T" Reconfirmation of Converers BY SC4

David Price as Deputy Convener WG11 Christophe Viel WG 11 Jean Jacques Michel WG 8 Gerd Ehinger WG2

### SC4 Resolution "J"

### RESOLUTION \*\_\_\_\* - Timing of Contributions for the February 2000 SC4 Plenary Meeting Number 30 in Melbourne, Australia.

Submission of documents and contributions sufficiently in advance of meetings to permit delegates to consider them in preparation for the meeting enhances the quality and timeliness of SC4 work. Therefore, SC4 establishes the following deadlines for documents and contributions for the February 2000 SC4 Plenary Meeting Number 30 in Melbourne:

- Draft *Advance Resolutions* to be considered for the Melbourne SC4 Plenary Meeting must be delivered to the Secretariat in a form suitable for immediate posting on the **TC184-SC4** web server no later than **DECEMBER 1, 1999.**
- Documents and contributions to be considered for the Melbourne SC4 Plenary Meeting, particularly those raising new issues/proposing new agenda items, or those for which a final agreement at the meeting is desired, must be delivered to the Secretariat no later than <a href="#FEBRUARY 4, 2000">FEBRUARY 4, 2000</a> for posting on the TC184-SC4 web server. Documents received at the Secretariat's office after February 4, 2000 will be returned to the submitter and will not be considered.

Only the following specific exceptions are permitted:

- Comments on *Posted Documents* provided they are received at the Secretariat's office in a form suitable for immediate posting on the TC184-SC4 web server, not later than FEBRUARY 8, 2000.
- A *Proposed Document Revision* from a project editor, which incorporates comments received prior to the meeting and which is intended to be developed further at the meeting, provided they are received at the Secretariat's office in a form suitable for immediate posting on the **TC184-SC4** web server, not later than **FEBRUARY 8, 2000.**

The *Draft Final Agenda* for adoption and use at the Melbourne Plenary will be posted to the **TC184-SC4** web site on **JANUARY 17, 2000**.

For contributions submitted via email, the SC4 Secretariat will provide a mechanism by which the submitter will be notified that the contribution has been received at the Secretariat's office. Nevertheless, ultimately the submitter is obligated to ensure receipt by a) checking the TC184-SC4 web site for document postings; b) checking iterations of draft agendas for agenda items and associated document references, (a "last call" draft agenda will be issued on FEBRUARY 9, 2000) c) corresponding with the Secretariat as required.

SC4 instructs its Secretariat to strictly enforce these deadlines.

SC4 requests its Secretariat to propose any required Handbook modification to enforce these deadlines at future SC4 meetings.

### SC4 Resolution "K"

ISO TC184/SC4 Meeting Meeting Date 1999-10-12 New Orleans, USA SC4 Resolution Liaison with PLCS, Inc. from WG3

**Introduction:** At its San Diego meeting in 1997-06, SC4 approved project 10303-pwi 0032 as a Preliminary Work Item to update the high level planning model for Product Life Cycle Support and identify needed application protocols. As a direct result of this work, a new organization—PLCS, Inc.—has been established, to accelerate the development of STEP standards for product support.

PLCS, Inc., incorporated in Delaware, United States, currently has 10 members fully signed up, and expects to reach 15 or more. A total of 2400 person-days effort pledged to PLCS, Inc. for next 12 months.

PLCS, Inc. will undertake a 3-year program to accelerate the development of International Standards for the information needed to maintain a complex product over its life cycle. Four business areas have been identified:

- Configuration Management and Change
- Support Engineering
- Inventory Management and
- Maintain and Provide Feedback.

The resultant products will be offered to SC4 for standardization through WG3/T8. These standards are expected to have substantial overlap with existing and planned STEP components, creating a requirement for extensive liaison.

Objective: Establish PLCS, Inc. as an SC4 liaison body.

**Resolution:** SC4 accepts the request of PLCS, Inc. to establish a two-way liaison from PLCS, Inc. to SC4 and appoints \_\_\_\_\_ as liaison.

### **Attached documents:**

WG3 N776—Draft report of Preliminary Work Item for Product Life Cycle Support.

# SC4 Resolution "L" Additional Liaison to OMG From WG 10

### Introduction

SC4 pioneered data modelling in the development of standards for data exchange and data sharing more than 10 years ago. In the meantime, UML has reached the status of a de-facto standard and is being used across most industries. As a consequence, these industries are pushing SC4 to open up its position regarding the application of UML in SC4 standards. In addition, several SC4 standards are facing the requirement to be interoperable with standards, which are based on UML, as for example the standards developed by TC211.

The WG10 convenor will participate in the OMG meeting next week as representative of TC211, to discuss TC211's requirements regarding modelling languages with the relevant projects in OMG.

### **Objectives**

This resolution authorizes the WG10 convenor, to also act as representative of SC4 in his contacts with OMG related to modelling language requirements.

### Resolution

SC4 asks the WG10 convenor to represent SC4's modelling language requirements, while he is participating in the OMG activities to define UML 1.5 and to collect requirements for UML 2.0.

### .SC4 Resolution "M"

ISO TC184/SC4 Meeting November 09<sup>th</sup> of 1999 New Orleans, US SC4 Resolution

### Liaison between ISOTC184/SC4 and INCOSE

from France

#### Introduction:

In the objective of having an AP which is really used by end-users and has the necessary feedback from a well recognized expert community, the AP233 team is proposing to officially establish a liaison between the SC4 and the INternational Council on System Engineering (INCOSE).

### **Objective:**

The objective of having such liaison brings the necessary real potential user community of the AP 233 into the review process of the AP233 data model. It is believed that this community has the necessary background and the necessary legacy to review and comment on the data model.

Another objective is to improve the built-in quality of the AP, and have the necessary third party review so that the developed standard corresponds to actual user needs.

This liaison is intended to let the SC4 endorsed the input from the INCOSE and to let the INCOSE endorse the AP233 data model.

This liaison is in direct line with the SC4 recommendation to have broad and independent industrial review and implementers point of view. It leverages the necessary interest from INCOSE which includes experts from a variety of industry sectors and system engineering tool vendors.

This liaison is embodied by DAVID OLIVER (133 Ashdown Road, Ballston Lake, NY, 12019 organization...Model Based Systems INC <a href="mailto:dwoliver@mail.com">dwoliver@mail.com</a> or <a href="mailto:dwoliver@ix.netcom.com">dwoliver@ix.netcom.com</a> (518-399-4651.)

### **Resolution:**

SC4 approves a Category A liaison with INCOSE, appoints Mr. David Oliver as the liaison officer, and requests that the SC4 secretary confirm this liaison with the ISO Central Secretariat.

### SC4 Resolution "N"

### ISO 10303-518 Preparation as a DIS

### from WG12 Common Resources

### **Introduction:**

- Whereas ISO 10303-518 is Application interpreted construct: Mechanical design shaded representation;
- Whereas ISO 10303-501 through 518 failed their first CD ballot. The belief of the WG12 Convener of the negative votes was not in technical content, but in method of preparation;
- Whereas ISO 10303-518 is currently required to prepare their document for a 2<sup>nd</sup> CD Ballot;
- Whereas ISO 10303-518 Project Leader does not believe that there are sufficient resources to progress ISO 10303-518 through the full CD2, DIS, IS process;
- Whereas ISO 10303-204, ISO 10303-205 have normative requirements to ISO 10303-518;
- Whereas ISO 10303-204 and ISO 10303-205 have passed CD ballot and would like to progress through the standards process in a timely manner;
- Whereas ISO 10303-204 and ISO 10303-205 have resources to complete their activities as International Standards.

### **Objective:**

The ISO 10303-518 Project Leader would like to prepare ISO 10303-518 as a DIS.

#### Resolution

SC4 authorizes the Project Leader for ISO 10303-518 to prepare the document as a DIS.

### SC4 Resolution "O"

ISO TC 184/SC4 Last Day Resolution

### **Introduction:**

ISO TC184/SC4 standards are copyrighted documents. However the EXPRESS schemas defined in them are freely used within implementations. The same happens now with the information contained in the mapping tables of STEP APs (clause 5.1).

Based on the EXPRESS and Mapping Table information in implementations it is possible to re-create a human readable representation of them which is rather similar to the original ISO standards. Therefor it is required to allow free usage of EXPRESS schemas and Mapping Tables.

### **Objectives:**

It is requested that files, which contain computer readable representations of a mapping table, are treated in the same manner as ARM and AIM EXPRESS files, provided they cannot be used for generation of mapping table documentation without further processing.

### **Resolution:**

ISO TC 184 SC 4 asks ISO to allow the public availability and free distribution of mapping tables as documented in clause 5.1 of ISO 10303 Application Protocols in electronic form.

### SC4 Resolution "P"

ISO TC 184/SC4 Last Day Resolution From Germany

### **Introduction:**

The ISO 14649 project (TC184 SC1 WG 7) is looking for possibilities to use STEP for controlling CNC machines. Some relations with AP 224 are already identified. However a standard mechanism to dynamically create CNC tooling pathes (NC-program) is still missing. One possibility is to use the Java programming language for this, based on the Java binding to the SDAI. However it is preferable to transmit the NC program together with the feature based data, e.g. as a part 21 file.

### **Objectives:**

STEP Part 49, process control, does today not support flow control with branching or looping conditions. There are also the parametric activities, which may help for this. Another possibility would be a semantic meta model of the EXPRESS language itself, so that an EXPRESS NC-program could be exchanged together with the feature data in one part21 file.

### **Resolution:**

SC4 recognises that there is an industrial requirement to introduce into ISO 10303 structures for controlling and changing the flow of a process during its execution. This may include, but is not limited to, the functionality of looping, branching, conditionals and parallel execution. It shall become possible to store such information in a physical file according to ISO 10303-21. This is a prerequisite for modelling dynamic processes like control systems or NC machining.

### SC4 Resolution "Q" Last Day Resolution Germany

### Introduction

During the last two years Michael Endres, ProSTEP, acted as Deputy Convener of ISO TC184/SC4/WG12. Due to new tasks and responsibilities, he is no more able to contribute to the work in the SC4 area.

### **Objective**

To continue the work of WG12 Deputy Convener, Christian Donges, ProSTEP, is proposed to be nominated as the successor of Michael Endres in WG12 context.

### Resolution

SC4 thanks Michael Endres Jr. for his efforts as Deputy Convener WG 12 and approves Christian Donges as Deputy Convenor of ISO TC184/SC4/WG12 "Common Resources".

# SC4 Resolution "R" Proposal to allow Application

### projects to enter Stage 3 ballot in HTML format

### by WG 10 Modularization Project

### Introduction

In January 1999 SC4 Resolution 395 allowed nominated STEP projects to adopt the modular approach based on a first set of deliverables from the WG10 STEP Modularization PWI. That resolution allowed the project to publish their results as PASs or TSs. Based on this resolution projects have begun development suites of modules.

During the development of suites of application modules, it has become apparent that to enable easier technical review it is often quite useful to use HTML as the format for documenting application modules. Today, ISO allows Stage 3 ballots to be conducted based on drafts documenting using HTML. The WG10 STEP Modularization PWI has been working with nominated development teams on how to document suites of application modules using HTML . This has been done as part work investigating the creation of a Catalogue and Repository of Application Modules that are deliverables of the PWI. The results of this activity have been demonstrated this week. Based on this activity and demonstration ,WG10 is recommending that modules suites be allowed to enter their Stage 3 ballot in HTML. WG10 is also recommending that a printable version of the modules suite be required to be provided as well. However, WG10 recommends that SC4 make an exception to the usual rules with regard to conforming to the SC4 Supplementary Directives for this printable version of the document.

It is recognised that ISO does not yet allow the DIS or TS resulting from a positive Stage 3 ballot to be published in HTML. The AM developers will be required to publish these documents using the relevent ISO and SC4 documentation guidelines. WG10 would like to encourage SC4 to work closely with the ISO Central Secretariat in enabling HTML publication of SC4 standards for all stages of development.

### **Benefits**

The benefits to industry of SC4 allowing projects adopting a modular approach to enter their Stage 3 ballot using HTML include:

- 4. Reducing the cost of developing the AM suite
- 5. Reducing the time to standardization of the AM suite
- Avoiding the duplication and repeated documentation of the same boilerplate for every AM in the suite
- 7. Enabling easier technical review of suites of AMs resulting in improved standards
- 8. Enabling the linking of the AM suite into a STEP Framework based catalogue

### **Objectives of the SC4 Resolution**

- 1. Enable better technical review of suites of inter-related Application Modules
- 2. Support the STEP Framework and Catalogue concept as a means of assisting SC4 standards developers in their work
- 3. Encourage adoption of the modular approach by reducing the time and cost to entering a Stage 3 ballot

### **Resolution**

SC4 resolves to allow STEP projects adopting the modular approach to enter their Stage 3 ballot with drafts documented using HTML. SC4 resolves that the project be required to provide a printable review version of the Application Modules. SC4 resolves that these printable review versions of the Application Modules be excepted from conformance to the SC4 Supplementary Directives. The provisions of Resolution 395 with respect to the use of guidelines development by the WG10 STEP Modularization PWI remain in effect for these projects.

# SC4 Resolution "S" Proposal to cancel ISO

### 10303-26 SDAI CORBA IDL Binding

WG 11

### Introduction

Industry support for the completion of ISO 10303-26 the SDAI CORBA IDL Language Binding has ended. The project leader and editor resigned in Lillehammer and efforts to find replacement resources has failed. Therefore, the project should be cancelled..

### **Objectives of the SC4 Resolution**

To formally remove ISO 10303-26 as a project with in SC4.

### Resolution

SC4 resolves to cancel the ISO 10303-26 project.

### SC4 Resolution "T"

# Proposal to split ISO 10303-27 into two parts and publish as Technical Specification

### **WG 11**

### Introduction

ISO 10303-27, the SDAI Java programming language binding, passed its combined New Work Item and Committee Draft ballot. The issues resolution workshop was held successfully this week but as the result of the workshop the project has requested two changes:

- 1 The project has agreed that the requirements addressed by the three conformance classes contained in the document are so different that the document should be split into two separate parts. Conformance class 3 is a full SDAI language binding and would be one part. Conformance classes 1 and 2 are a lightweight SDAI binding and methods for publishing EXPRESS/STEP data in an Internet environment (e.g. using of other Internet standards such as LDAP) and would be the other part.
- 2 Rather than publish the document using the DIS, FDIS, IS ballot cycle, the project is requesting that the two parts be standardized as Technical Specifications. The Java programming language changes more quickly than the 3 year IS ballot cycles can address.

### **Benefits**

The benefits to industry of this approach is that different user communities have separate standards to which they conform. Additionally, the use of the Technical Specification as a the standardization vehicle meets the needs of the Internet community with respect to the speed of standardization and addressing change.

### **Objectives of the SC4 Resolution**

- 9. To address timeframe requirements for Internet standards within SC4 standards;
- 10. To publish related technical content in the same document and to publish less related technical content in separate documents

### Resolution

SC4 resolves that the technical content of ISO 10303-27 shall be published as two separate parts and as Technical Specifications rather than as a single part as a Draft International Standard. Conformance Class 3 of ISO 10303-27 shall be published as ISO 10303-27 under the title of the current ISO 10303-27 and Conformance Class 1 and 2 shall be published as ISO 10303-29 under the title of "Lightweight SDAI Java Programming Language Binding".

SC4 directs Secretariat to update the URL containing the titles of all ISO 10303 parts to reflect this change.

### SC4 Resolution "U"

# Proposal to for a Preliminary Work Item to propose updates to the STEP Implementation Methods based on the STEP Modularization EXPRESS amendment

WG 11

### Introduction

With the acceptance of Amendment 1 of EXPRESS supporting STEP Modularization into the SC4 program of work, a project is required to propose updates to the STEP Implementation Methods. In order to maintain coordination with the other STEP modularization and WG11 activities David Price is proposed to lead this PWI.

### **Objectives of the SC4 Resolution**

To plan and propose the appropriate SC4 projects to update the ISO 10303 Implementation Methods based on the content of ISO 10303-11 Amendment 1

To enable the implementation of the technical content of EXPRESS Amendment 1

### Resolution

SC4 resolves to create the STEP Modularization Implementation Methods Update PWI and places this project within WG11. SC4 resolves that David Price be named the leader of this project. SC4 encourages members to provide resources to this project.